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STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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SECRETARY

June 29, 2006

Memorandum To: C. E. (Neil) Lassiter, Jr. P.E.  
Division Engineer, Division Two

From: Derrick W. Lewis, P.E.  
Feasibility Studies Unit Head

A handwritten signature in black ink that reads "Derrick W. Lewis".

Subject: Extension of Fire Tower Road from the Memorial Drive (NC 11 / NC 903) /  
Fire Tower Road (SR 1708) Intersection to the proposed Greenville  
Southwest Bypass (R-2250) / Forlines Road (SR 1126) Interchange,  
Greenville, Pitt County

As requested, we have completed a cursory evaluation of a proposed extension of Fire Tower Road (SR 1708) from Memorial Drive to Forlines Road, in order to incorporate the current Greenville Urban Area Thoroughfare Plan alignment. This study also includes a cursory evaluation of the widening of Forlines Road to the proposed Greenville Southwest Bypass (R-2250).

### Description of Alternatives

In this study, we evaluated four different alignment alternatives for this proposed extension of Fire Tower Road (See Figure 1) to Forlines Road. In addition, alternatives all included widening Forlines Road from the extension of Fire Tower Road to Frog Level Road (SR 1127). The cross section evaluated for all alternatives is a four-lane divided shoulder section with a 23-foot raised grass median on 150 feet of right of way. The length of the alternatives is approximately 2.7 miles both for Alternative 1 & 2, 2.5 miles for Alternative 3 and 2.3 miles for Alternative 4.

**Alternative 1** proposes to begin at the Memorial Drive / Fire Tower Road intersection and continue west then south on new location in order to parallel Reedy Branch Road (SR 1131) before intersecting Forlines Road at Reedy Branch Road intersection. This alternative then proceeds west along the Forlines Road alignment to the Frog Level Road intersection. This alternative widens Forlines Road across the existing Swift Creek crossing. The total cost of this alternative is \$22,500,000 with \$7,900,000 for right-of-way and \$14,600,000 for construction. It is anticipated there will be 11 residences and 12 businesses relocated as a result of this alternative. Although this alternative is not expected to adversely impact the Reedy Branch



Baptist Church, it will impact commercial development near the Reedy Branch Road (SR 1131) / Forlines Road intersection.

**Alternative 2** proposes to begin at the Memorial Drive / Fire Tower Road intersection and proceed west on new location to intersect with Reedy Branch Road. The alignment then proceeds south along the existing Reedy Branch Road alignment to Forlines Road. Finally, the four-lane divided section continues west along Forlines Road to the Frog Level Road intersection. As above, this alternative widens Forlines Road at the existing Swift Creek crossing. The total cost of this alternative is \$24,000,000 with \$8,800,000 for right-of-way and \$15,200,000 for construction. It is anticipated that there will be 14 residences and 13 businesses relocated as a result of this alternative. While this alternative is the closest match to the current thoroughfare plan alignment, it has the largest amount of impacts on the local human environment including the Reedy Branch Baptist Church.

**Alternative 3** proposes to begin at the Memorial Drive / Fire Tower Road intersection and proceed west then south on new location in an alignment similar to Alternative 1. However, this alternative intersects Reedy Branch Road north of Forlines Road and continues on new location to intersect Forlines Road near Forbes Road (SR 2106). This alternative proposes a new stream crossing of Swift Creek. Finally, this alternative continues the proposed four lane divided section west on Forlines Road to the Frog Level Road intersection. The total cost of this alternative is \$20,100,000 with \$6,400,000 for right-of-way and \$14,100,000 for construction. It is anticipated that there will be 11 residences and no businesses relocated as a result of this alternative. This alternative is preferred because it minimizes the adverse impacts to the local area (commercial, institutional and religious developments), while providing only one stream crossing.

**Alternative 4** proposes to begin at the Memorial Drive / Fire Tower Road intersection and proceed west on new location, crossing Reedy Branch Road to Davenport Farm Road. The alignment then proceeds west along existing Davenport Road. After crossing Swift Creek this alternative will continue to new location and include a new stream crossing of Gum Branch as well as impacts on the South Central High School Campus before intersecting Forlines Road. This alternative then continues the proposed four lane divided section by upgrading Forlines Road to the Frog Level Road intersection. The total cost of this alternative is \$18,700,000 with \$6,500,000 for right-of-way and \$12,200,000 for construction. It is anticipated that there will be 11 residences and no businesses relocated as a result of this alternative. While this alternative may have the lowest overall costs, it will have two stream crossings and impact the South Central High School Campus.

### **Other Considerations**

A preferred alignment for the Greenville Southwest Bypass is not known at this time. If the eastern corridors are selected (Corridor 4 or 5), the current estimates for the proposed Fire Tower Road Extension are considered sufficient. However, if the western most alignment (Corridor 1B) for the Greenville Southwest Bypass is selected, Forlines Road will need to be widened for approximately 1 mile, at an anticipated total cost of \$5,300,000 with \$800,000 for right-of-way and \$4,500,000 for construction. It is anticipated that there will be 4 residences and 1 business relocated as a result of this improvement.

It should also be noted that there are two streams within the project study area. Swift Creek parallels Reedy Branch Road and is a class C Sw NSW tributary in the Neuse River Basin. Gum

Branch between Davenport Farm Road and Forlines Road is also a class C Sw NSW tributary in the Neuse River Basin.

### **Recommendations**

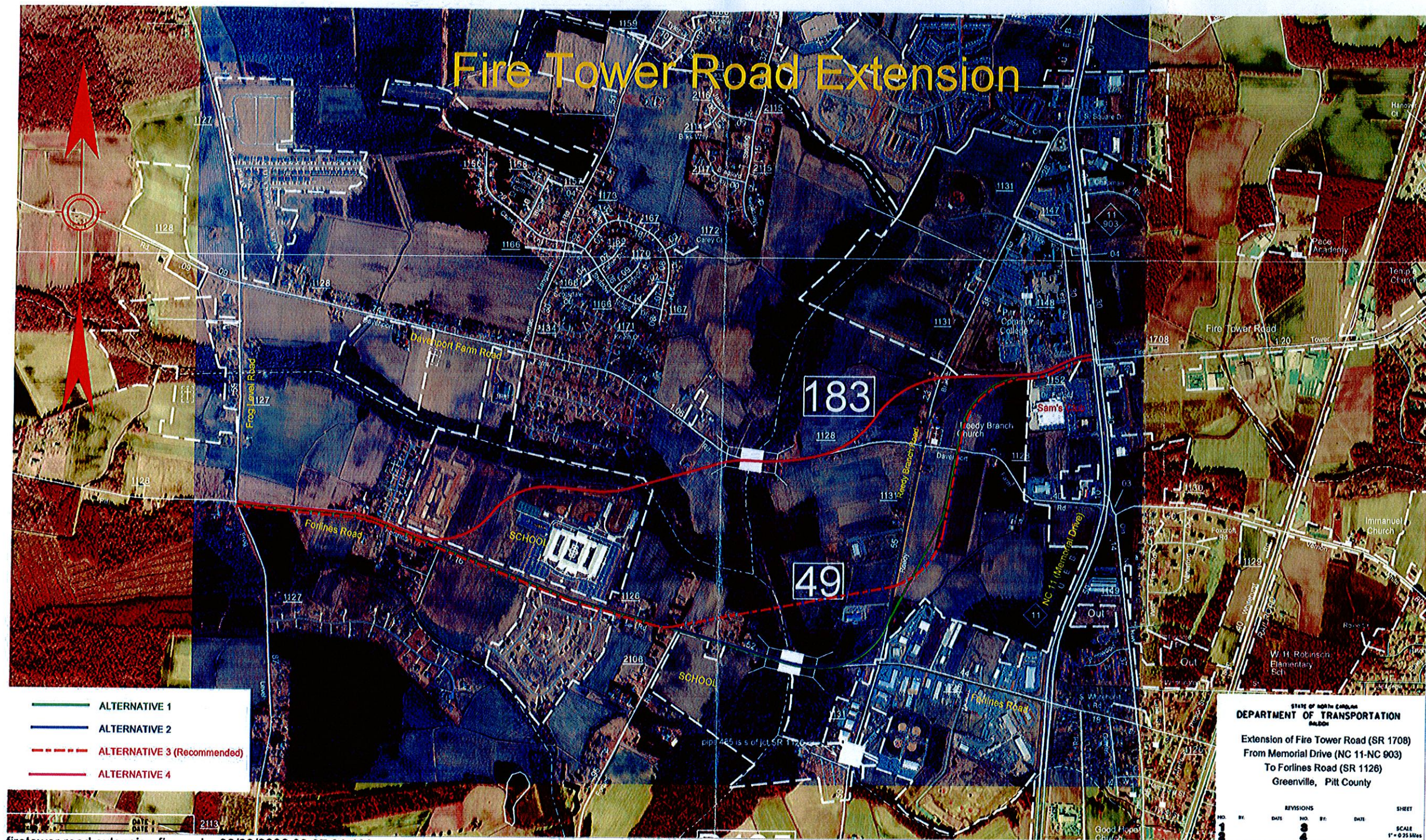
Based on our cursory evaluation, Alternative 3 is preferred because it minimizes the impacts to the local human environment, and requires only one stream crossing. The total cost of this alternative is between \$20,100,000 (2.5 miles) or 25,400,000 (3.5 miles) depending on the preferred alignment of the Greenville Southwest Bypass.

This cursory evaluation is only the initial step in the planning and design process for this project and is not to be considered the product of exhaustive environmental or design investigations. If we can provide any additional information, please do not hesitate to contact me at (919) 733-2039.

DL/dl

cc: Mr. Marvin K. Blount, III, Member, Board of Transportation  
Mr. Cam McRae, Member, Board of Transportation  
Mr. T. N. Tysinger, Jr. P.E. Director of Public Works, Greenville  
Mr. Calvin W. Leggett, P.E.  
Mr. Al Avant  
Mr. Ray McIntyre, P.E.







# Map #1

## Alternatives Originally Proposed by NCDOT

